LISTING OF CLAIMS

Please cancel claims 1-20 without prejudice to resubmission.

1-20. (Canceled)

Please enter the following new claims 21-63.

21. (New) Method for effecting computer implemented decision-support in selection of a drug therapy of patients having a viral disease, comprising providing a rules database, providing an input of patient data including genotype data on the viral genome of the viral disease, wherein the rules database comprises a number of associated rules for each available drug for treatment of the viral disease, each rule indicating the suitability of the drug for treatment of a specific viral genotype, entering the patient data into the rules database, the database providing an output of drugs suitable for therapy, and displaying the drugs suitable for therapy in a ranking in accordance with their suitability indication, for selection, wherein the suitability indication of the rules is based on at least a combination of a first value indicating the resistance level of the genotype for the drug and a second value indicating the confidence in the first value.

22. Method according to claim 21, wherein the suitability indication is based on at least a combination of the first and second values and clinical experience.

23. Method according to claim 22, wherein the clinical experience comprises the outcome of clinical studies relating the presence of substitutions at start of therapy directly to clinical or virological outcome.

24. Method according to claim 21, wherein the second value can indicate as confidence level suggestive evidence, proven in vitro or proven in vivo.

25. Method according to claim 21, wherein the suitability indication of the rules is based on at least a first value indicating the resistance level of the genotype for the drug when present at a certain drug level in a patient.

26. Method according to claim 25, wherein the first value is a function of the drug level, wherein an expected drug level in the patient is further provided and entered in the database.

27. Method according to claim 26, wherein the expected drug level is based on a patient-specific drug level measurement.

28. Method according to claim 25, wherein two or more drugs or combinations of drugs with equal suitability indication are ranked relative to one another according to the drug levels on which the rules for the drugs are based.

29. Method according to claim 21, wherein the database further comprises a rule for a drug available for treatment, the rule indicating the suitability of the drug for treatment of a specific viral genotype when the drug is taken in combination with another drug, wherein the combination of the drugs is displayed in the ranking with the individual drugs according to the suitability indication for the combination.

30. Method according to claim 29, wherein the rule is based on the effect of the other drug on the level of the drug in a patient.

31. Method according to claim 21, in particular for use with HIV patients, wherein the rules database comprises rules for different protein substitutions.

32. Method according to claim 31, wherein the rules database comprises rules for protease (P) substitutions and reverse transcriptase (RT) substitutions.

33. Method according to claim 21, wherein the drugs available for therapy are displayed as output from the database in different categories in accordance with the type of drug activity.

34. Method according to claim 33, wherein the type of drug activity includes protease inhibitor, nucleoside RT inhibitor and non-nucleoside RT inhibitor.

35. Method according to claim 21, wherein the patient data input comprises the clade of the virus, wherein the clade is used in the step of selecting a suitable drug therapy.

36. Method according to claim 35, wherein the entered genotype data is used to determine the clade of the virus.

37. Method according to claim 21, wherein the patient data input comprises a drug therapy as current treatment, wherein in the display of the drugs it is indicated at each drug if the same is used in the current treatment.

38. Method according to claim 21, wherein a database of reference articles on one or more of the drugs available for treatment is provided, wherein a list of reference articles can be displayed by entering a request on a given drug, preferably by double clicking on a drug name displayed, the list containing articles supporting the suitability of the drug for treatment of the viral disease with the entered genotype data.

39. Method according to claim 21, wherein a classification of the genotype data of the viral genome can be indicated, wherein the rules database is used to classify the genotype data at least as relevant or not to assessing the suitability level of the drugs.

40. Method according to claim 39, wherein the genotype data comprises data on substitutions in the viral genome, wherein each substitution can be classified into three categories, wherein the first category indicates relevant to drug resistance, the second category indicates that the substitution is known, but not known to affect drug resistance, and the third category indicates that the substitution is not reported to have an effect on drug resistance.

41. Method according to claim 21, wherein the computer and database are accessible via a web-site.

42. A computer program device readable by a computer, comprising a computer program executable by the computer for effecting the computer to carry out the method of claim 21.

43. Computer program carrier, comprising a computer program in a format downloadable by a computer, comprising a computer program executable by the computer for effecting the computer to carry out the method of claim 21.

44. Method for effecting computer implemented decision-support in selection of a drug therapy of patients having a viral disease, comprising providing a rules database, providing an input of patient data including genotype data on the viral genome of the viral disease, wherein the rules database comprises a number of associated rules for each available drug for treatment of the viral disease, each rule indicating the suitability of the drug for treatment of a specific viral genotype, entering the patient data into the rules database, the database providing an output of drugs suitable for therapy, and displaying the individual drugs suitable for therapy in a ranking in accordance with their suitability indication, for selection, wherein the database further comprises a rule for at least one certain drug available for treatment, the rule indicating the suitability of the certain drug for treatment of a specific viral genotype when the drug is taken in combination with

another drug, wherein only combinations of drugs are displayed in the ranking with the individual drugs according to the suitability indication for the combination where drugs in the combination influence each other's suitability indication.

45. Method according to claim 44, wherein the suitability indication of the rules is based on at least a combination of a first value indicating the resistance level of the genotype for the drug and a second value indicating the confidence in the first value.

46. Method according to claim 45, wherein the suitability indication is based on at least a combination of the first and second values and clinical experience.

47. Method according to claim 45, wherein the second value can indicate as confidence level suggestive evidence, proven in vitro or proven in vivo.

48. Method according to claim 44, wherein a rule indicating the suitability of the certain drug for treatment of a specific viral genotype when the drug is taken in combination with another drug, is based on the effect of the other drug on the level of the drug in a patient.

49. A computer program device readable by a computer, comprising a computer program executable by the computer for effecting the computer to carry out the method of claim 44.

50. Computer program carrier, comprising a computer program in a format downloadable by a computer, comprising a computer program executable by the computer for effecting the computer to carry out the method of claim 44.

51. Method for effecting computer implemented decision-support in selection of a drug therapy of patients having a viral disease, comprising providing a rules database, providing an input of patient data including genotype data on the viral genome of the viral disease, wherein the rules database comprises a number of associated rules for each available drug for treatment of the viral disease, each rule indicating the suitability of the drug for treatment of a specific viral genotype, entering the patient data into the rules database, the database providing an output of drugs suitable for therapy, and displaying the drugs suitable for therapy in a ranking in accordance with their suitability indication, for selection, wherein the suitability indication of the rules is based on at least a first value indicating the resistance level of the genotype for the drug when present at a certain drug level in a patient.

52. Method according to claim 51, wherein the first value is a function of the drug level, wherein an expected drug level in the patient is further provided and entered in the database.

53. Method according to claim 52, wherein the expected drug level is based on a patient-specific drug level measurement.

54. Method according to claim 51, wherein two or more drugs or combinations of drugs with equal suitability indication are ranked relative to one another according to the drug levels on which the rules for the drugs are based.

55. Method according to claim 51, wherein the database further comprises a rule for a drug available for treatment, the rule indicating the suitability of the drug for treatment of a specific viral genotype when the drug is taken in combination with another drug, wherein the combination of the drugs is displayed in the ranking with the individual drugs according to the suitability indication for the combination.

56. Method according to claim 55, wherein the rule is based on the effect of the other drug on the level of the drug in a patient.

57. Method according to claim 51, wherein the patient data input comprises a drug therapy as current treatment, wherein in the display of the drugs it is indicated at each drug if the same is used in the current treatment.

58. A computer program device readable by a computer, comprising a computer program executable by the computer for effecting the computer to carry out the method of claim 51.

59. Computer program carrier, comprising a computer program in a format downloadable by a computer, comprising a computer program executable by the computer for effecting the computer to carry out the method of claim 51.

60. Method for effecting computer implemented decision-support in selection of a drug therapy of patients having a viral disease, comprising providing a rules database, providing an input of patient data including genotype data on the viral genome of the viral disease, wherein the rules database comprises a number of associated rules for each available drug for treatment of the viral disease, each rule indicating the suitability of the drug for treatment of a specific viral genotype, entering the patient data into the rules database, the database providing an output of

drugs suitable for therapy, and displaying the drugs suitable for therapy in a ranking in accordance with their suitability indication, for selection, wherein the clade is used in the step of selecting a suitable drug therapy.

61. Method according to claim 60, wherein the entered genotype data is used to determine the clade of the virus.

62. A computer program device readable by a computer, comprising a computer program executable by the computer for effecting the computer to carry out the method of claim 60.

63. Computer program carrier, comprising a computer program in a format downloadable by a computer, comprising a computer program executable by the computer for effecting the computer to carry out the method of claim 60.